Chemistry in Everyday Life

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Abstract

We human beings are knowingly or unknowingly surrounded by chemistry. Morning to evening, life to death, it is a big aspect of our day-to-day life. One may think that it is a branch of science that deals with chemicals in the lab only but unknowingly he/she is applying it in daily works. We find its use in the food we eat, cleaning chemicals, the air we breathe and, every object we touch. Literally, student's chemistry education takes place in lectures and books, lab playing with instruments and chemicals and they don't see the relevance in their everyday life. Understanding the importance of chemistry in our regular life is most important in our technological and competitive society. It also helps to understand the world issue arising currently. One might get surprised when we say that our body is made of chemical elements and compounds so we can say we are the products of chemistry. Our emotions like love, respect, jealousy, frustration are also the aspect of chemistry.

Keywords: Chemistry, Chemicals, Education, Additives, Reaction

Introduction

With the modernization in education, the study on chemistry has been increased and its application on day to day life has been increased. Peoples in the past used to use chemistry in daily life without knowing it as there doesn't use to be more research and study. The principle of chemistry is a benefit for mankind. Foods we eat do have chemistry. They comprise organic compounds like carbohydrates, starch and sugar, protein, and lipids (Garforth,1986). Other nutrients like vitamins and minerals and water are all important chemical compounds. The respiration process which includes intake of oxygen and removal of carbon dioxide is used by the plant for photosynthesis. We use chemistry in the digestion of food in the alimentary canal which uses enzymes to break food into tiny absorbable molecules. Likewise, cooking is also a chemical reaction. The makeup creams and anti-aging creams are chemical products made in the lab (Bailin,2002). Vitamins, proteins, fats, carbohydrates, etc are chemistry in food.

Applications

1. Toothpaste

Do we wonder that what chemicals are on the paste that cleans and shines our teeth and protects it from germs? We have seen and used many kinds of toothpastes like Colgate, Pepsodent, Dabur Red. What people in ancient times used to clean teeth? So toothpaste uses chemicals like Fluoride, Triclosan, Saccharin, Carrageenan, Aspartame,

Parabens, Sodium Lauryl Sulfate & Sodium Laureth Sulfate, Propylene Glycol (Childs, 1986).

2. Soap/Detergent

We used to feel surprised how soap cleans our hand and kill germs present in our hand? The soap contains some chemicals to do this activity so it is the application of chemistry in our daily life. Likewise, detergent acts as a surfactant and helps to wash clothes. The soap contains fatty acid eg. Steric, oleic, palmitic acid, and strong alkali and detergent contain Sodium Lauryl Sulfate & Sodium Laureth Sulfate, Phosphates, etc. They act as an emulsifier.

3. Food Preservatives

Food preservatives protect food from decaying and spoiling by bacteria and other microorganisms. Salt, sugar, oils, and sodium benzoate are common in our household.

4. Cosmetics

They increase the appearance of our body. Lipsticks, oils, beeswax, perfumes, nail polish mascaras are commonly used and they contain chemicals that can harm us too. They contain polymers, solvents, grease, petroleum oils, colorants, pigments, etc.

5. Drugs and medicine

Chemistry is very important for preparation of the medicine. Medicine is prepared by the use of several chemicals in a definite ratio using titration. Medicine interact inside our body with a macromolecular target and create biological response (ASE, 1985).

Chemistry is also used to measure the amount of sodium, potassium, and many other elements. Blood and urine analysis is done with the help of chemistry.

6. Agriculture

Agriculture is very important for our survival. We get food from it. We use fertilizers and insecticide to increase the fertility of the soil and protect crops from pests, rats, and locusts. Fertilizers and insecticides contain chemicals like hydrogen cyanide, naphthalene, nicotine, and methyl bromide, etc (Hosteller, 1983).

7. Oxidation

The food we take is oxidized in our stomach and produces energy which is used to do work in our daily life.

8. Industries and transport

Industries like petroleum industries, cloth mills, lather factories, food industries, and many others use fuels and chemical products for power production and processing the products. Vehicles like cars, buses, airplanes use petrol and diesel to produce energy and run them. So chemistry paved the way for modernization in daily life.

9. Science and Technology

Nowadays nuclear energy is the topic of study. The destruction of the atom bomb in Hiroshima and Nagasaki are results of chemistry. Reactors are facilitating through energy generation by chain reactions. Forensic Science uses the law of chemistry for analysis. Tele-communications, IT, Space missions also use the chemistry of semiconductors and nano-tubes.

10. Environment Issues

Environmental issues arising currently like pollution, global warming, UV radiation, and the production of harmful chemicals can be solved by the education of chemistry. Chemistry is important there because they are results of chemistry so the environment can be saved by chemistry.

Conclusion

Thus the daily life chemistry is the theme of science which is all around us every minute in every location and there is not any shortage of examples to prove this fact. Without chemistry, our life is impossible so it is one medium to live a better life and better doing. So it is a must for everyone to learn and enjoy. Hence effective and good use of chemistry is the need of this modern technological world.

Acknowledgment

I would like to thank my brother, family members, and friends who inspired and provide nice guidance and suggestions to write this paper. I would like to thank the Department of Civil Engineering of Pulchowk Campus for providing a favorable environment. I also would like to admire my readers for their valuable comments and critics which will help me to write further other papers and articles.

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